

Amendments to the Claims:

1. (Original) An ergonomic device actuator comprising:

a housing;

a nut disposed to rotate within said housing, said nut having right handed threads at a first end of said nut and said nut having left handed threads at a second end of said nut;

a first lead screw having right handed threads disposed to translate in a first direction within said nut and being extendingly engaged with said first end of said nut;

a second lead screw having left handed threads disposed to translate in a second direction within said nut and being extendingly engaged with said second end of said nut;

a seat in one of said first or second lead screws adapted to anchor a tension cable wire end axially with said first and second lead screws; and

a collar on the other of said first or second lead screws adapted to anchor a tension cable sleeve end axially with said first and second lead screws;

whereby rotation of said nut drives said first lead screw and said second lead screw apart, tensioning the tension cable by urging the tension cable wire end apart from the tension cable sleeve end.

2. (Original) The actuator of claim 1 wherein said first lead screw telescopes into said second lead screw.

3. (Original) The actuator of claim 1 wherein said second lead screw telescopes into said first lead screw.

4. (Original) The actuator of claim 1 wherein one of said first or second lead screws telescopes into the other of said first or second lead screws with a threaded engagement.

5. (Original) The actuator of claim 1 wherein the tension cable is a Bowden cable.

6. (Original) The actuator of claim 1 wherein said second lead screw includes an installation slot adapted to accept installation of a Bowden cable end bullet.

7. (Currently Amended) The actuator of claim 1 wherein said housing further comprises an annular detent, and wherein said nut further comprises a ring, said ring being seated within said annular detent and said annular detent retaining said nut within said housing as said nut rotates therein~~first lead screw and said second lead screw are polyurethane.~~

8. (Original) The actuator of claim 1 wherein the coefficient of friction between said threads on said nut and said threads on said first lead screw and between said threads on said nut and said threads on said second lead screw is in the range from about 0.08 to about .014.

9. (Original) The actuator of claim 1 wherein further comprising a second seat for a second Bowden cable wire end and a second anchor for a second Bowden cable sleeve.

10. (Original) The actuator claim 1 wherein one rotation of said nut corresponds to 10 mm of Bowden cable wire travel relative to the Bowden cable sleeve.

11. (Original) The actuator of claim 1 wherein the pitch of said right handed threads and the pitch of said left handed threads is in a range from about 2.0 to about 3.0.

12. (Original) The actuator of claim 1 wherein the pitch of said right handed threads and the pitch of said left handed threads is in a range from about 4.0 to about 6.0.

13. (Original) The actuator of claim 1 wherein one of said first or second lead screws has a shaft that inserts into the other of said first or second lead screws.

14. (Currently Amended) The actuator of claim 13 wherein said shaft has ridges that prevent rotation of said lead screws.

15. (Currently Amended) The actuator of claim 13 wherein said seat adapted to anchor said tension cable wire end is on said shaft.

16. (Original) The actuator of claim 1 wherein said first lead screw, said second lead screw and said nut are double threaded.

Claims 17-24. (Withdrawn)

Claims 25-34. (Cancelled)

35. (New) An actuator for an ergonomic device comprising:

a housing;

a nut disposed to rotate within said housing, said nut having right handed threads at a first end of said nut and said nut having left handed threads at a second end of said nut;

a first lead screw having right handed threads disposed to translate in a first direction within said nut and being extendingly engaged with said first end of said nut;

a second lead screw having left handed threads disposed to translate in a second direction within said nut and being extendingly engaged with said second end of said nut;

a seat in one of said first or second lead screws adapted to anchor a tension cable wire end axially with said first and second lead screws; and

a collar on the other of said first or second lead screws adapted to anchor a tension cable sleeve end axially with said first and second lead screws;

whereby rotation of said nut drives said first lead screw and said second lead screw apart, tensioning the tension cable by urging the tension cable wire end apart from the tension cable sleeve end, and wherein at least one of said first and second lead screws further comprise at least one of:

a shaft from said first lead screw inserted into said second lead screw;

a shaft from said second lead screw inserted into said first lead screw;

a section from said first lead screw telescoping into said second lead screw; and

a section from said second lead screw telescoping into said first lead screw.

36. (New) The actuator of claim 35 further comprising a means for preventing rotation of said lead screws.

37. (New) The actuator of claim 36 wherein said rotation preventing means comprises a channel and a rib fitting within said channel.

38. (New) The actuator of claim 35 further comprising a means for retaining said set of rotatable threads from translating with respect to said housing.

39. (New) The actuator of claim 35 wherein said housing further comprises an annular detent, and wherein said nut further comprises a ring, said ring being seated within said annular detent and said annular detent retaining said nut within said housing as said nut rotates therein.

40. (New) A device for actuating a support structure comprising:

a Bowden cable comprising a cable sleeve around a cable wire; and
an actuator comprising a cable sleeve collar, a cable wire seat, and a set of rotatable threads, said rotatable threads comprising a set of right handed threads and a set of left handed threads, wherein said cable sleeve collar is operatively connected to said cable sleeve and further comprises a first set of threads operatively engaged with said set of rotatable threads, wherein said cable wire seat is operatively connected to said cable wire and comprises a second set of threads oppositely threaded from said first set of threads and operatively engaged with said rotatable threads, and wherein rotation of said rotatable threads translates at least one of said cable sleeve collar and said cable wire seat away from the other one of said cable sleeve collar and said cable wire seat.

41. (New) The actuating device of claim 40 further comprising a housing, wherein said housing comprises a means for retaining said set of rotatable threads from translation.

42. (New) The actuating device of claim 40 wherein said set of rotatable threads is comprised of at least one of a nut and a screw, and wherein said first set of threads and said second set of threads are comprised of at least one of a pair of nuts and a pair of screws.

43. (New) A device for actuating a Bowden cable having a cable sheath enclosing a wire core comprising:

a cable sleeve collar operatively connected to the cable sheath;

a cable wire seat operatively connected to the wire core; and

a means for simultaneously moving said cable sleeve collar in a first direction and said cable wire seat in a second direction opposite from said first direction, wherein the cable sheath is moved in said first direction and said wire core in said second direction.

44. (New) The actuator of claim 43 wherein said moving means comprises:

a housing comprising an annular detent

a nut disposed to rotate within said housing, said nut comprising right handed threads, left handed threads and a ring seated within said annular detent;

a first lead screw engaged with said right handed threads of said nut and disposed to translate respectively thereto, said first lead screw being operatively connected to one of said cable sleeve collar and said cable wire seat; and

a second lead screw engages with said left handed threads of said nut and disposed to translate respectively thereto, said second lead screw being operatively connected to the other of said cable sleeve collar and said cable wire seat, and wherein at least one of said first and second lead screws further comprise at least one of:

a shaft from said first lead screw inserted into said second lead screw;

a shaft from said second lead screw inserted into said first lead screw;

a section from said first lead screw telescoping into said second lead screw; and

a section from said second lead screw telescoping into said first lead screw.